- 1 -

AMENDMENT

(Amendment under the provision of Law Section 11)

To: Examiner of the Patent Office

1. Identification of the International Application

PCT/JP2004/008398

2. Applicant

Name: SONY CORPORATION

Address: 7-35, Kitashinagawa 6-chome, Shinagawa-ku,

Tokyo 141-0001 JAPAN

Country of nationality: Japan

Country of residence: Japan

3. Agent

Name: Patent Attorney, INAMOTO, Yoshio

Address: 711 Building 4F, 11-18, Nishi-Shinjuku 7-chome,

Shinjuku-ku, Tokyo 160-0023 JAPAN

4. Item to be Amended

Description and claims

5. Subject Matter of Amendment

As in the attached sheets.

(1) "4-byte (32-bit) Julian-date information 42 representing
a Julian date corresponding to the recording date of the
material data with reference to 00:00:00.00 on October 15,
1582 on the Greenwich meridian (the date of the reform of

the Christian calendar by Pope Gregory)" at line 7 to line
12 on page 5 of the Description is amended to read:
"Julian-date information 42 representing the recording data
of the material data by the number of dates counted from
November 17, 1858".

(2) "An information processing apparatus according to the
present invention comprises creating means for creating
label information describing content of data; and recording
means for recording the label information created by the
creating means on a recording medium." at line 25 on page 7
to line 4 on page 8 of the Description is amended to read:
"An information processing apparatus according to the
present invention comprises copying means for copying an
identifier for identifying a format that is managed by a
first file for managing information recorded on a recording
medium, the identifier being included in the first file;
creating means for creating a second file including the
identifier copied by the copying means and label information
describing content of data; and recording means for
recording the second file created by the creating means in
the format on the recording medium, as a file that is
different from the first file.".

(3) "The label information may include an identifier for
identifying a format that is a set of files managed under a
directory structure created by a single formatting process."

at line 5 to line 7 on page 8 of the Description is deleted.

(4) "The information processing apparatus may further comprise comparing means for comparing an identifier included in the label information and an identifier included in management information for managing data recorded on the recording medium." at line 8 to line 12 on page 8 of the Description is deleted.

(5) "The information processing apparatus may further comprise setting means for setting the information regarding the representative frame image." at line 16 to line 18 on page 8 of the Description is amended to read:

"The information processing apparatus may further comprise setting means for setting the label information, so that the creating means creates the second file including the identifier copied by the copying means and the label information set by the setting means."

(6) At line 1 on page 9 of the Description, "The information processing apparatus may further comprise comparing means for comparing an identifier included in the second file with an identifier included in the first file recorded on the recording medium, so that the recording means records the second file in the format on the recording medium only when it is determined as a result of comparison by the comparing means that the identifier included in the second file coincides with the identifier included in the first file.",

and "The information processing apparatus may further
comprise reading means for reading the second file from the
recording medium; and updating means for updating the label
information included in the second file read by the reading
means; so that the comparing means compares an identifier
included in the second file whose label information has been
updated by the updating means with an identifier included in
the first file recorded on the recording means, and so that
the recording means records the second file in the format on
the recording medium only when it is determined as a result
of comparison by the comparing means that the identifier
included in the second file coincides with the identifier
included in the first file.", are added.

(7) "An information processing method according to the
present invention comprises a creating step of creating
label information describing content of data; and a
recording controlling step of controlling recording of the
label information created by processing in the creating step
on a recording medium." at line 3 to line 8 on page 9 of the
Description is amended to read:

"An information processing method according to the present
invention comprises a copying step of copying an identifier
for identifying a format that is managed by a first file for
managing information recorded on a recording medium, the
identifier being included in the first file; a creating step

of creating a second file including the identifier copied by processing in the copying step and label information describing content of data; and a recording controlling step of exercising control so that the second file created by processing in the creating step is recorded in the format on the recording medium, as a file that is different from the first file.".

(8) "A program according to the present invention allows a computer to execute a creating step of creating label information describing content of data; and a recording controlling step of controlling recording of the label information created by processing in the creating step on a recording medium." at line 9 to line 14 on page 9 of the Description is amended to read:

"A program according to the present invention allows a computer to execute a copying step of copying an identifier for identifying a format that is managed by a first file for managing information recorded on a recording medium, the identifier being included in the first file; a creating step of creating a second file including the identifier copied by processing in the copying step and label information describing content of data; and a recording controlling step of exercising control so that the second file created by processing in the creating step is recorded in the format on the recording medium, as a file that is different from the

first file.".

(9) "In a recording medium according to the present invention, label information describing content of data recorded on the recording medium is recorded." at line 15 to line 17 on page 9 of the Description is amended to read:

"In a recording medium according to the present invention, a first file including an identifier for identifying a format on the recording medium, the first file serving to manage data in the format, and a second file including an identifier that is the same as the identifier, the second file further including label information describing content of data in the format, are recorded in the format as mutually different files.".

(10) "According to the information processing apparatus and method, program, and recording medium of the present invention, label information describing content of data is created, and the label information is recorded on a recording medium." at line 18 to line 22 on page 9 of the Description is amended to read:

"According to the information processing apparatus and method, program, and recording medium of the present invention, an identifier for identifying a format that is managed by a first file for managing information recorded on a recording medium, the identifier being included in the first file, is copied, a second file including the

identifier copied and label information describing content of data is created, and the second file created is recorded in the format on the recording medium, as a file that is different from the first file.".

(11) Claims 1 to 7 are amended as in the attached sheets.

(12) Claims 10 to 12 are amended as in the attached sheets.

6. List of Attached Documents

    (1) Pages 5 to 8 of the Description

    (2) Page 9 and pages 9/1 and 9/2 of the Description

    (3) Pages 105 and 106 of the Claims

    (4) Page 107 and pages 107/1 and 107/2 of the Claims

24 is composed of an 8-byte time snap 31, a 2-byte random number 32, and a 6-byte network-node number 33.

As shown in Fig. 3, the time snap 31 is composed of 4-byte (32-bit) time information 41 representing an integer value corresponding to a temporal position of the recording time of the material data in a day (i.e., a value in the case where 24 hours is represented by 32 bits), and Julian-date information 42 representing the recording data of the material data by the number of dates counted from November 17, 1858. The random number 32 is information that is used to prevent collision of the material number with other clips, for example, when setting of time information in an apparatus that creates material data is not accurate. The network-node number 33 is information for identifying an apparatus used to record the material data, and is represented using a MAC address, which is a unique number assigned to every NIC (Network Interface Card). For example, in the case of the Ethernet(R), the former 24 bits represent an address specific to each vendor, managed by the IEEE, and the latter 24 bits represent a number specific to each NIC, assigned by each vendor.

The structure of the material number 24 may be different from the structure described above. For example, a material number composed of a time snap, version information, a UUID identification number, a random number,

and a network-node number, used in AAF (Advanced Authoring Format) or UUID (Universally Unique Identifier), may be used, as shown in Fig. 4. Alternatively, a material number including an SMPTE user label may be used, as shown in Fig. 5. Information representing which of these structures is used is indicated in the universal label 21.

A clip is a unit representing a single material-data creating process such as imaging process or a recording process, and it indicates a time between the start and end of the single material-data creating process (e.g., in the case of an imaging process, the time between the start and end of imaging), or an amount of data of various types of data obtained by the material-data creating process. Furthermore, the clip sometimes also refers to the set of various types of data itself. The clip herein refers to the set of various types of data obtained by a single material-data creating process.

As described above, the UMID is composed of a combination of a large number of pieces of information, and the use of the UMID allows globally unique identification of material data under any environment. For example, an editing apparatus manages UMIDs of pieces of material data and the path names of directories in which the pieces of material data are managed in association with each other, so that it is possible to search for a piece of material data

associated with a specified UMID.

However, when a plurality of optical discs having recorded material thereon as described above exists, it has not been possible for the user to readily recognize which material data is recorded on which optical disc among the optical discs.

For example, when the user uses a playback apparatus to search for and play back target material data from a plurality of optical discs using a UMID, the user has to repeatedly mount the optical discs one by one on a drive of the playback apparatus, search for the target material data, for example, by using the UMID, and dismount the disc from the drive and mount a next optical disc when the material data is not found, and so forth, until the target material data is found. This could involve laborious operations.

Disclosure of Invention

The present invention has been made in view of the situation described above, and it serves to improve convenience of a recording medium, for example, to facilitate identification of information recorded on a recording medium.

An information processing apparatus according to the present invention comprises copying means for copying an identifier for identifying a format that is managed by a

first file for managing information recorded on a recording
medium, the identifier being included in the first file;
creating means for creating a second file including the
identifier copied by the copying means and label information
describing content of data; and recording means for
recording the second file created by the creating means in
the format on the recording medium, as a file that is
different from the first file.

The label information may include information regarding
a representative frame image representing all the frame
images of image data included in the recording medium.

The information processing apparatus may further
comprise setting means for setting the label information, so
that the creating means creates the second file including
the identifier copied by the copying means and the label
information set by the setting means.

The setting means may selectively set the
representative frame image from representative frame images
of respective clips recorded on the recording medium.

The setting means may set a beginning frame image of a
beginning clip as the representative frame image when no
instruction for setting the representative frame image is
given.

The information processing apparatus may further
comprise comparing means for comparing an identifier

included in the second file with an identifier included in the first file recorded on the recording medium, so that the recording means records the second file in the format on the recording medium only when it is determined as a result of comparison by the comparing means that the identifier included in the second file coincides with the identifier included in the first file.

The information processing apparatus may further comprise reading means for reading the second file from the recording medium; and updating means for updating the label information included in the second file read by the reading means; so that the comparing means compares an identifier included in the second file whose label information has been updated by the updating means with an identifier included in the first file recorded on the recording means, and so that the recording means records the second file in the format on the recording medium only when it is determined as a result of comparison by the comparing means that the identifier included in the second file coincides with the identifier included in the first file.

The recording medium may be an optical disc.

The recording medium may be a semiconductor memory.

An information processing method according to the present invention comprises a copying step of copying an identifier for identifying a format that is managed by a

first file for managing information recorded on a recording
medium, the identifier being included in the first file; a
creating step of creating a second file including the
identifier copied by processing in the copying step and
label information describing content of data; and a
recording controlling step of exercising control so that the
second file created by processing in the creating step is
recorded in the format on the recording medium, as a file
that is different from the first file.

A program according to the present invention allows a
computer to execute a copying step of copying an identifier
for identifying a format that is managed by a first file for
managing information recorded on a recording medium, the
identifier being included in the first file; a creating step
of creating a second file including the identifier copied by
processing in the copying step and label information
describing content of data; and a recording controlling step
of exercising control so that the second file created by
processing in the creating step is recorded in the format on
the recording medium, as a file that is different from the
first file.

In a recording medium according to the present
invention, a first file including an identifier for
identifying a format on the recording medium, the first file
serving to manage data in the format, and a second file

including an identifier that is the same as the identifier, the second file further including label information describing content of data in the format, are recorded in the format as mutually different files.

According to the information processing apparatus and method, program, and recording medium of the present invention, an identifier for identifying a format that is managed by a first file for managing information recorded on a recording medium, the identifier being included in the first file, is copied, a second file including the identifier copied and label information describing content of data is created, and the second file created is recorded in the format on the recording medium, as a file that is different from the first file.

Brief Description of the Drawings

Fig. 1 is a diagram showing an example structure of an